

Taxonomic Outline of the Bacteria and Archaea, Release 7.7 March 6, 2007.

Part 1 – The “Archaea”, Phyla “Crenarchaeota” and “Euryarchaeota”

George M. Garrity, Timothy G. Lilburn, James R. Cole,
Scott H. Harrison, Jean Euzéby, and Brian J. Tindall

Domain "Archaea" N4Lid DOI: 10.1601/nm.1

Phylum "Crenarchaeota" Garrity and Holt 2001. N4Lid DOI: 10.1601/nm.2

Class *Thermoprotei* ^{VP} Reysenbach 2002. N4Lid DOI: 10.1601/nm.3

Order *Thermoproteales* ^{VP} Zillig and Stetter 1982. N4Lid DOI: 10.1601/nm.4

Family *Thermoproteaceae* ^{VP} Zillig and Stetter 1982. N4Lid DOI: 10.1601/nm.5

Genus *Thermoproteus* ^{VP} Zillig and Stetter 1982. N4Lid DOI: 10.1601/nm.6

Thermoproteus tenax ^{VP} Zillig and Stetter 1982. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35583. GOLD ID: Gi01878. GCAT ID: 001814_GCAT. Sequenced strain: DSM 2078 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD). N4Lid DOI: 10.1601/nm.7

Thermoproteus neutrophilus ^{VP} Stetter and Zillig 1989. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 2338. High-quality 16S rRNA sequence S000610923 (RDP), AB009618 (Genbank). GOLD ID: Gi01058. GCAT ID: 001813_GCAT. Entrez genome id: 15645. Genome sequence is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.8

Thermoproteus uzonensis ^{VP} Bonch-Osmolovskaya et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 5263. N4Lid DOI: 10.1601/nm.9

Genus *Caldivirga* ^{VP} Itoh et al. 1999. N4Lid DOI: 10.1601/nm.10

Caldivirga maquilingensis ^{VP} Itoh et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700844. High-quality 16S rRNA sequence AB013926 (RDP), AB013926 (Genbank). GOLD ID: Gi01059. GCAT ID: 001815_GCAT. Entrez Lgenome id: 17421. Sequenced strain: IC-167 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.11

Genus *Pyrobaculum* ^{VP} Huber et al. 1988. N4Lid DOI: 10.1601/nm.12

Pyrobaculum islandicum ^{VP} Huber et al. 1988. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 4184. High-quality 16S rRNA sequence S000650841 (RDP), L07511 (Genbank). GOLD ID: Gc00475. GCAT ID: 000134_GCAT. Entrez genome id: 16743. Sequenced strain: DSM 4184 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.13

Pyrobaculum aerophilum ^{VP} Völkl et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51768. High-quality 16S rRNA sequence L07510 (RDP), L07510 (Genbank). GOLD ID: Gc00075. GCAT ID: 000535_GCAT. Entrez genome id: 172. Sequenced strain: ATCC 51768 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 2 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.14

Pyrobaculum arsenaticum ^{VP} Huber et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700994. High-quality 16S rRNA sequence AJ277124 (RDP), AJ277124 (Genbank). GOLD ID: Gi01056. GCAT ID: 001812_GCAT. Entrez genome id: 15582. Sequenced strain: ATCC 700994 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.15

Pyrobaculum organotrophicum ^{VP} Huber et al. 1988. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 4185. High-quality 16S rRNA sequence AB063647 (RDP), AB063647 (Genbank). N4Lid DOI: 10.1601/nm.16

Pyrobaculum oguniense ^{VP} Sako et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 13380. High-quality 16S rRNA sequence AB029339 (RDP), AB029339 (Genbank). N4Lid DOI: 10.1601/nm.17

Genus *Thermocladium* ^{VP} Itoh et al. 1998. N4Lid DOI: 10.1601/nm.18

Thermocladium modestius ^{VP} Itoh et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 10088. High-quality 16S rRNA sequence AB005296 (RDP), AB005296 (Genbank). N4Lid DOI: 10.1601/nm.19

Genus *Vulcanisaeta* ^{VP} Itoh et al. 2002. N4Lid DOI: 10.1601/nm.20

Vulcanisaeta souniana ^{VP} Itoh et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14430. High-quality 16S rRNA sequence AB063645 (RDP), AB063645 (Genbank). N4Lid DOI: 10.1601/nm.21

Vulcanisaeta distributa ^{VP} Itoh et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14429. High-quality 16S rRNA sequence AB063630 (RDP), AB063630 (Genbank). N4Lid DOI: 10.1601/nm.22

Family *Thermodilaceae* ^{VP} Burggraf et al 1997. N4Lid DOI: 10.1601/nm.23

Genus *Thermodilum* ^{VP} Zillig and Gierl 1983. N4Lid DOI: 10.1601/nm.24

Thermodilum pendens ^{VP} Zillig and Gierl 1983. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 2475. High-quality 16S rRNA sequence X14835 (RDP), X14835 (Genbank). GOLD ID: Gc00473. GCAT ID: 000136_GCAT. Entrez genome id: 16331. Sequenced strain: Hrk 5 is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.25

Order "Caldisphaerales" N4Lid DOI: 10.1601/nm.26

Family "Caldisphaeraceae" N4Lid DOI: 10.1601/nm.27

Genus *Caldisphaera* ^{VP} Itoh et al. 2003. N4Lid DOI: 10.1601/nm.28

Caldisphaera lagunensis ^{VP} Itoh et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 11604. High-quality 16S rRNA sequence AB087499 (RDP), AB087499 (Genbank). N4Lid DOI: 10.1601/nm.29

Order Desulfurococcales ^{VP} Huber and Stetter 2002. N4Lid DOI: 10.1601/nm.30

Family Desulfurococcaceae ^{VP} Zillig and Stetter 1983. N4Lid DOI: 10.1601/nm.31

Genus *Desulfurococcus* ^{VP} Zillig and Stetter 1983. N4Lid DOI: 10.1601/nm.32

Desulfurococcus mucosus ^{VP} Zillig and Stetter 1983. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35584. N4Lid DOI: 10.1601/nm.33

Desulfurococcus amylolyticus ^{VP} Bonch-Osmolovskaya et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 3822. High-quality 16S rRNA sequence AF250331 (RDP), AF250331 (Genbank). N4Lid DOI: 10.1601/nm.34

Desulfurococcus fermentans ^{VP} Perevalova et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 16532. N4Lid DOI: 10.1601/nm.9405

Desulfurococcus mobilis ^{VP} Zillig and Stetter 1983. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35582. N4Lid DOI: 10.1601/nm.35

Genus *Acidilobus* ^{VP} Prokofeva et al. 2000. N4Lid DOI: 10.1601/nm.36

Acidilobus aceticus ^{VP} Prokofeva et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-268. High-quality 16S rRNA sequence AF191225 (RDP), AF191225 (Genbank). N4Lid DOI: 10.1601/nm.37

Genus *Aeropyrum* ^{VP} Sako et al. 1996. N4Lid DOI: 10.1601/nm.38

Aeropyrum pernix ^{VP} Sako et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700893. High-quality 16S rRNA sequence AB008745 (RDP), AB008745 (Genbank). GOLD ID: Gc00022. GCAT ID: 000588_GCAT. Entrez genome id: 211. Sequenced strain: K1 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.39

Aeropyrum camini ^{VP} Nakagawa et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-758. High-quality 16S rRNA sequence AB109559 (RDP), AB109559 (Genbank). N4Lid DOI: 10.1601/nm.40

Genus *Ignicoccus* ^{VP} Huber et al. 2000. GOLD ID: Gi01875. GCAT ID: 001596_GCAT. Sequenced strain: Kin4-I is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD). N4Lid DOI: 10.1601/nm.41

Ignicoccus islandicus ^{VP} Huber et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700957. High-quality 16S rRNA sequence X99562 (RDP), X99562 (Genbank). N4Lid DOI: 10.1601/nm.42

Ignicoccus pacificus ^{VP} Huber and Stetter 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700958. High-quality 16S rRNA sequence AJ271794 (RDP), AJ271794 (Genbank). N4Lid DOI: 10.1601/nm.43

Genus *Ignisphaera* ^{VP} Niederberger et al. 2006. N4Lid DOI: 10.1601/nm.10020

Ignisphaera aggregans ^{VP} Niederberger et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1221. High-quality 16S rRNA sequence DQ060321 (RDP), DQ060321 (Genbank). N4Lid DOI: 10.1601/nm.10019

Genus *Staphylothermus* ^{VP} Stetter and Fiala 1986. N4Lid DOI: 10.1601/nm.44

Staphylothermus marinus ^{VP} Stetter and Fiala 1986. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43588. High-quality 16S rRNA sequence X99560 (RDP), X99560 (Genbank). GOLD ID: Gi01036. GCAT ID: 001525_GCAT. Entrez genome id: 17449. Genome sequence is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.45

Staphylothermus hellenicus ^{VP} Arab et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12710. High-quality 16S rRNA sequence AJ012645 (RDP), AJ012645 (Genbank). N4Lid DOI: 10.1601/nm.46

Genus *Stetteria* ^{VP} Jochimsen et al. 1998. N4Lid DOI: 10.1601/nm.47

Stetteria hydrogenophila ^{VP} Jochimsen et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 11227. High-quality 16S rRNA sequence Y07963 (RDP), Y07963 (Genbank). N4Lid DOI: 10.1601/nm.48

Genus *Sulfophobococcus* ^{VP} Hensel et al. 1997. N4Lid DOI: 10.1601/nm.49

Sulfophobococcus zilligii ^{VP} Hensel et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 11193. High-quality 16S rRNA sequence X98064 (RDP), X98064 (Genbank). N4Lid DOI: 10.1601/nm.50

Genus *Thermodiscus* ^{VP} Stetter 2003. N4Lid DOI: 10.1601/nm.51

Thermodiscus maritimus ^{VP} Stetter 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 15173. High-quality 16S rRNA sequence X99554 (RDP), X99554 (Genbank). N4Lid DOI: 10.1601/nm.52

Genus *Thermosphaera* ^{VP} Huber et al. 1998. N4Lid DOI: 10.1601/nm.53

Thermosphaera aggregans ^{VP} Huber et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 11486. High-quality 16S rRNA sequence X99556 (RDP), X99556 (Genbank). N4Lid DOI: 10.1601/nm.54

Family *Pyrodictiaceae* ^{VP} Burggraf et al 1997. N4Lid DOI: 10.1601/nm.55

Genus *Pyrodictium* ^{VP} Stetter et al. 1984. N4Lid DOI: 10.1601/nm.56

Pyrodictium occultum ^{VP} Stetter et al. 1984. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 2709. High-quality 16S rRNA sequence M21087 (RDP), M21087 (Genbank). N4Lid DOI: 10.1601/nm.57

Pyrodictium abyssi ^{VP} Pley and Stetter 1991. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49828. High-quality 16S rRNA sequence X99559 (RDP), X99559 (Genbank). GOLD ID: Gi01446. GCAT ID: 000911_GCAT. Sequenced strain: DSM 6158 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD). N4Lid DOI: 10.1601/nm.58

Pyrodictium brockii ^{VP} Stetter et al. 1984. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 2708. N4Lid DOI: 10.1601/nm.59

Genus *Hyperthermus* ^{VP} Zillig et al. 1991. N4Lid DOI: 10.1601/nm.60

Hyperthermus butylicus ^{VP} Zillig et al. 1991. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700455. High-quality 16S rRNA sequence X99553 (RDP), X99553 (Genbank). GOLD ID: Gc00500. GCAT ID: 000109_GCAT. Entrez genome id: 208. Sequenced strain: DSM 5456 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.61

Genus *Pyrolobus* ^{VP} Blöchl et al. 1999. N4Lid DOI: 10.1601/nm.62

Pyrolobus fumarii ^{VP} Blöchl et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 11204. High-quality 16S rRNA sequence X99555 (RDP), X99555 (Genbank). GOLD ID: Gi00498. GCAT ID: 001816_GCAT. Entrez genome id: 13457. Genome sequence is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.63

Order *Sulfolobales* ^{VP} Stetter 1989. N4Lid DOI: 10.1601/nm.64

Family *Sulfolobaceae* ^{VP} Stetter 1989. N4Lid DOI: 10.1601/nm.65

Genus *Sulfolobus* ^{AL} Brock et al. 1972. N4Lid DOI: 10.1601/nm.66

Sulfolobus acidocaldarius ^{AL} Brock et al. 1972. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33909. High-quality 16S rRNA sequence U32320 (RDP), U32320 (Genbank). GOLD ID: Gc00273. GCAT ID: 000336_GCAT. Entrez genome id: 13935. Sequenced strain: ATCC 33909 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.67

Sulfolobus metallicus ^{VP} Huber and Stetter 1992. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 6482. High-quality 16S rRNA sequence D85519 (RDP), D85519 (Genbank). GOLD ID: Gi01091. GCAT ID: 001817_GCAT. Genome sequence is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD). N4Lid DOI: 10.1601/nm.70

Sulfolobus shibatae ^{VP} Grogan et al. 1991. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51178. High-quality 16S rRNA sequence M32504 (RDP), M32504 (Genbank). N4Lid DOI: 10.1601/nm.71

Sulfolobus solfataricus ^{VP} Zillig et al. 1980. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35091. High-quality 16S rRNA sequence X90478 (RDP), X90478 (Genbank). GOLD ID: Gc00057. GCAT ID: 000553_GCAT. Entrez genome id: 108. Sequenced strain: ATCC 35092, DSM 1617 is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.72

Sulfolobus tokodaii ^{VP} Suzuki et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 10545. High-quality 16S rRNA sequence AB022438 (RDP), AB022438 (Genbank). GOLD ID: Gc00061. GCAT ID: 000549_GCAT. Entrez genome id: 246. Sequenced strain: JCM 10545 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.73

Sulfolobus yangmingensis ^{VP} Jan et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: YM1. High-quality 16S rRNA sequence AB010957 (RDP), AB010957 (Genbank). N4Lid DOI: 10.1601/nm.74

Genus *Acidianus* ^{VP} Segerer et al. 1986. GOLD ID: Gi01753. GCAT ID: 001596_GCAT. Sequenced strain: JP7 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD). N4Lid DOI: 10.1601/nm.75

Acidianus infernus ^{VP} Segerer et al. 1986. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 3191. High-quality 16S rRNA sequence D85505 (RDP), D85505 (Genbank). N4Lid DOI: 10.1601/nm.76

Acidianus ambivalens ^{VP} (Zillig and Böck 1987) Fuchs et al. 1996. <== *Desulfurolobus ambivalens* (basonym). Synonym links through N4Lid: 10.1601/ex.77. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49204. High-quality 16S rRNA sequence X90484 (RDP), X90484 (Genbank). N4Lid DOI: 10.1601/nm.77

† *Desulfurolobus ambivalens* ^{VP} Zillig and Böck 1987. ==> *Acidianus ambivalens* (new combination). Synonym links through N4Lid: 10.1601/ex.77. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49204. High-quality 16S rRNA sequence X90484 (RDP), X90484 (Genbank). N4Lid 10.1601/nm.9145

Acidianus brierleyi ^{VP} (Zillig et al. 1980) Segerer et al. 1986. <== *Sulfolobus brierleyi* (basonym). Synonym links through N4Lid: 10.1601/ex.68. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35095. GOLD ID: Gi00001. GCAT ID: 001779_GCAT. Entrez genome id: 199. Genome sequence is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.78

† *Sulfolobus brierleyi* ^{VP} Zillig et al. 1980. ==> *Acidianus brierleyi* (new combination).

Synonym links through N4Lid: 10.1601/ex.68. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35095. GOLD ID: Gi00001. GCAT ID: 001779_GCAT. Entrez genome id: 199. Genome sequence is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.68

Genus † *Desulfurolobus* ^{VP} Zillig and Böck 1987. Unified with *Acidianus*, links through 10.1601/nm.4374. N4Lid 10.1601/nm.9143

Genus *Metallosphaera* ^{VP} Huber et al. 1989. N4Lid DOI: 10.1601/nm.79

Metallosphaera sedula ^{VP} Huber et al. 1989. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51363. High-quality 16S rRNA sequence X90481 (RDP), X90481 (Genbank). GOLD ID: Gi01305. GCAT ID: 001818_GCAT. Entrez genome id: 17447. Sequenced strain: DSM 5348 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.80

Metallosphaera hakonensis ^{VP} (Takayanagi et al. 1996) Kurosawa et al. 2003. <== *Sulfolobus hakonensis* (basonym). Synonym links through N4Lid: 10.1601/ex.69. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51241. N4Lid DOI: 10.1601/nm.81

† *Sulfolobus hakonensis* ^{VP} Takayanagi et al. 1996. ==> *Metallosphaera hakonensis* (new combination). Synonym links through N4Lid: 10.1601/ex.69. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51241. N4Lid DOI: 10.1601/nm.69

Metallosphaera prunae ^{VP} Fuchs et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 10039. High-quality 16S rRNA sequence X90482 (RDP), X90482 (Genbank). N4Lid DOI: 10.1601/nm.82

Genus *Stygiolobus* ^{VP} Segerer et al. 1991. N4Lid DOI: 10.1601/nm.83

Stygiolobus azoricus ^{VP} Segerer et al. 1991. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700479. High-quality 16S rRNA sequence X90480 (RDP), X90480 (Genbank). N4Lid DOI: 10.1601/nm.84

Genus *Sulfurisphaera* ^{VP} Kurosawa et al. 1998. N4Lid DOI: 10.1601/nm.85

Sulfurisphaera ohwakuensis ^{VP} Kurosawa et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12421. High-quality 16S rRNA sequence D85507 (RDP), D85507 (Genbank). N4Lid DOI: 10.1601/nm.86

Genus *Sulfurococcus* ^{VP} Golovacheva et al. 1995. N4Lid DOI: 10.1601/nm.87

Sulfurococcus mirabilis ^{VP} Golovacheva et al. 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: INMI AT-59. N4Lid DOI: 10.1601/nm.88

Sulfurococcus yellowstonensis ^{VP} corrig. Karavaiko et al. 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: Str6kar. N4Lid DOI: 10.1601/nm.89

Phylum "Euryarchaeota" Garrity and Holt 2001. N4Lid DOI: 10.1601/nm.90

Class *Methanobacteria* ^{VP} Boone 2002. N4Lid DOI: 10.1601/nm.91

Order *Methanobacteriales* ^{VP} Balch and Wolfe 1981. N4Lid DOI: 10.1601/nm.92

Family *Methanobacteriaceae* ^{AL} Barker 1956. N4Lid DOI: 10.1601/nm.93

Genus *Methanobacterium* ^{AL} Kluyver and van Niel 1936. N4Lid DOI: 10.1601/nm.94

Methanobacterium formicum ^{AL} Schnellen 1947. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33274. High-quality 16S rRNA sequence AF169245 (RDP), AF169245 (Genbank). GOLD ID: Gi01750. GCAT ID: 001797_GCAT. Sequenced strain: MF is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD). N4Lid DOI: 10.1601/nm.95

Methanobacterium aarhusense ^{VP} Shlimon et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-828. High-quality 16S rRNA sequence AY386124 (RDP), AY386124 (Genbank). N4Lid 10.1601/nm.8695

Methanobacterium alcaliphilum ^{VP} Worakit et al. 1986. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43379. N4Lid DOI: 10.1601/nm.96

Methanobacterium beijingense ^{VP} Ma et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 15999. High-quality 16S rRNA sequence AY350742 (RDP), AY350742 (Genbank). N4Lid 10.1601/nm.8696

Methanobacterium bryantii ^{VP} Balch and Wolfe 1981. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33272. High-quality 16S rRNA sequence M59124 (RDP), M59124 (Genbank). N4Lid DOI: 10.1601/nm.98

Methanobacterium congoense ^{VP} Cuzin et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1286. High-quality 16S rRNA sequence AF233586 (RDP), AF233586 (Genbank). N4Lid DOI: 10.1601/nm.99

Methanobacterium espanolae ^{VP} Patel et al. 1990. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1073. High-quality 16S rRNA sequence AF095260 (RDP), AF095260 (Genbank). N4Lid DOI: 10.1601/nm.101

Methanobacterium ivanovii ^{VP} Jain et al. 1988. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-930. High-quality 16S rRNA sequence AF095261 (RDP), AF095261 (Genbank). N4Lid DOI: 10.1601/nm.102

Methanobacterium oryzae ^{VP} Joulian et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 11106. High-quality 16S rRNA sequence AF028690 (RDP), AF028690 (Genbank). N4Lid DOI: 10.1601/nm.104

Methanobacterium palustre ^{VP} Zellner et al. 1990. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1077. High-quality 16S rRNA sequence AF095263 (RDP), AF095263 (Genbank). N4Lid DOI: 10.1601/nm.105

Methanobacterium subterraneum ^{VP} Kotelnikova et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700657. High-quality 16S rRNA sequence X99044 (RDP), X99044 (Genbank). N4Lid DOI: 10.1601/nm.107

Methanobacterium thermaggregans ^{VP} corrig. Blotevogel and Fischer 1988. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43168. High-quality 16S rRNA sequence AF095264 (RDP), AF095264 (Genbank). N4Lid DOI: 10.1601/nm.108

Methanobacterium uliginosum ^{VP} König 1985. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35997. N4Lid DOI: 10.1601/nm.114

Genus *Methanobrevibacter* ^{VP} Balch and Wolfe 1981. N4Lid DOI: 10.1601/nm.116

Methanobrevibacter ruminantium ^{VP} (Smith and Hungate 1958) Balch and Wolfe 1981. <==
Methanobacterium ruminantium (basonym). Synonym links through N4Lid: 10.1601/ex.106.
 Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35063. GOLD ID: Gi01112. GCAT ID: 001791_GCAT. Genome sequence is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 0 (NCBI). N4Lid DOI: 10.1601/nm.117

† *Methanobacterium ruminantium* ^{AL} Smith and Hungate 1958. ==> *Methanobrevibacter ruminantium* (new combination). Synonym links through N4Lid: 10.1601/ex.106. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35063. GOLD ID: Gi01112. GCAT ID: 001791_GCAT. Genome sequence is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 0 (NCBI). N4Lid DOI: 10.1601/nm.106

Methanobrevibacter arboriphilus ^{VP} corrig. (Zeikus and Henning 1975) Balch and Wolfe 1981. <== *Methanobacterium arbophilicum* (basonym). Synonym links through N4Lid: 10.1601/ex.97. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33747. N4Lid DOI: 10.1601/nm.118

† *Methanobacterium arbophilicum* ^{AL} Zeikus and Henning 1975. ==> *Methanobrevibacter arboriphilus* (new combination). Synonym links through N4Lid: 10.1601/ex.97. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33747. N4Lid DOI: 10.1601/nm.97

Methanobrevibacter acididurans ^{VP} Savant et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1168. High-quality 16S rRNA sequence AF242652 (RDP), AF242652 (Genbank). N4Lid DOI: 10.1601/nm.119

Methanobrevibacter curvatus ^{VP} Leadbetter and Breznak 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 11111. High-quality 16S rRNA sequence U62533 (RDP), U62533 (Genbank). N4Lid DOI: 10.1601/nm.120

Methanobrevibacter cuticularis ^{VP} Leadbetter and Breznak 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 11139. High-quality 16S rRNA sequence U41095 (RDP), U41095 (Genbank). N4Lid DOI: 10.1601/nm.121

Methanobrevibacter filiformis ^{VP} Leadbetter et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 11501. High-quality 16S rRNA sequence U82322 (RDP), U82322 (Genbank). N4Lid DOI: 10.1601/nm.122

Methanobrevibacter gottschalkii ^{VP} Miller and Lin 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1169. High-quality 16S rRNA sequence U55239 (RDP), U55239 (Genbank). N4Lid DOI: 10.1601/nm.123

Methanobrevibacter oralis ^{VP} Ferrari et al. 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 7256. N4Lid DOI: 10.1601/nm.124

Methanobrevibacter smithii ^{VP} Balch and Wolfe 1981. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35061. High-quality 16S rRNA sequence U55233 (RDP), U55233 (Genbank). N4Lid DOI: 10.1601/nm.125

Methanobrevibacter thaueri ^{VP} Miller and Lin 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 11995. High-quality 16S rRNA sequence U55236 (RDP), U55236 (Genbank). N4Lid DOI: 10.1601/nm.126

Methanobrevibacter woesei ^{VP} Miller and Lin 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1171. High-quality 16S rRNA sequence U55237 (RDP), U55237 (Genbank). N4Lid DOI: 10.1601/nm.127

Methanobrevibacter wolinii ^{VP} Miller and Lin 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1170. High-quality 16S rRNA sequence U55240 (RDP), U55240 (Genbank). N4Lid DOI: 10.1601/nm.128

Genus *Methanospaera* ^{VP} Miller and Wolin 1985. N4Lid DOI: 10.1601/nm.129

Methanospaera stadtmanae ^{VP} Miller and Wolin 1985. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43021. High-quality 16S rRNA sequence M59139 (RDP), M59139 (Genbank). GOLD ID: Ge00334. GCAT ID: 000276_GCAT. Entrez genome id: 15579. Sequenced strain: ATCC 43021 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.130

Methanospaera cuniculi ^{VP} Biavati et al. 1990. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1074. N4Lid DOI: 10.1601/nm.131

Genus *Methanothermobacter* ^{VP} Wasserfallen et al. 2000. N4Lid DOI: 10.1601/nm.132

Methanothermobacter defluvii ^{VP} (Kotelnikova et al. 1994) Boone 2002. *<= Methanobacterium defluvii* (basonym). Synonym links through N4Lid: 10.1601/ex.100. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1269. N4Lid DOI: 10.1601/nm.133

† *Methanobacterium defluvii* ^{VP} Kotelnikova et al. 1994. *=> Methanothermobacter defluvii* (new combination). Synonym links through N4Lid: 10.1601/ex.100. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1269. N4Lid DOI: 10.1601/nm.100

Methanothermobacter marburgensis ^{VP} Wasserfallen et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-927. High-quality 16S rRNA sequence X15364 (RDP), X15364 (Genbank). N4Lid DOI: 10.1601/nm.134

Methanothermobacter thermautrophicus ^{VP} (Zeikus and Wolfe 1972) Wasserfallen et al. 2000. *<= Methanobacterium thermautrophicum* (basonym). Synonym links through N4Lid: 10.1601/ex.110. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29096. GOLD ID: Gc00009. GCAT ID: 000601_GCAT. Entrez genome id: 289. Sequenced strain: Delta H is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.135

† *Methanobacterium thermalcaliphilum* ^{VP} corrig. Blotevogel et al. 1988. *≈ Methanobacterium thermoformicicum* (earlier heterotypic synonym), links through 10.1601/nm.110. Source of type

material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43169. N4Lid DOI: 10.1601/nm.109

† *Methanobacterium thermoformicicum* ^{VP} Zhilina and Ilarionov 1986. ≈ *Methanobacterium thermalcaliphilum* (earlier heterotypic synonym), links through 10.1601/nm.110. Source of type material recommended for DOE sponsored genome sequencing by the JGI: Z-245. High-quality 16S rRNA sequence X68712 (RDP), X68712 (Genbank). N4Lid DOI: 10.1601/nm.112

† *Methanobacterium thermautotrophicum* ^{AL} corrig. Zeikus and Wolfe 1972. ==> *Methanothermobacter thermautotrophicus* (new combination). Synonym links through N4Lid: 10.1601/ex.110. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29096. GOLD ID: Gc00009. GCAT ID: 000601_GCAT. Entrez genome id: 289. Sequenced strain: Delta H is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.110

Methanothermobacter thermoflexus ^{VP} (Kotelnikova et al. 1994) Boone 2002. <== *Methanobacterium thermoflexum* (basonym). Synonym links through N4Lid: 10.1601/ex.111. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51444. N4Lid DOI: 10.1601/nm.136

† *Methanobacterium thermoflexum* ^{VP} Kotelnikova et al. 1994. ==> *Methanothermobacter thermoflexus* (new combination). Synonym links through N4Lid: 10.1601/ex.111. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51444. N4Lid DOI: 10.1601/nm.111

Methanothermobacter thermophilus ^{VP} (Laurinavichus et al. 1990) Boone 2002. <== *Methanobacterium thermophilum* (basonym). Synonym links through N4Lid: 10.1601/ex.113. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1076. N4Lid DOI: 10.1601/nm.137

† *Methanobacterium thermophilum* ^{VP} Laurinavichus et al. 1990. ==> *Methanothermobacter thermophilus* (new combination). Synonym links through N4Lid: 10.1601/ex.113. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1076. N4Lid DOI: 10.1601/nm.113

Methanothermobacter wolfeii ^{VP} (Winter et al. 1985) Wasserfallen et al. 2000. <== *Methanobacterium wolfei* (basonym). Synonym links through N4Lid: 10.1601/ex.115. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43096. N4Lid DOI: 10.1601/nm.138

† *Methanobacterium wolfei* ^{VP} Winter et al. 1985. ==> *Methanothermobacter wolfeii* (new combination). Synonym links through N4Lid: 10.1601/ex.115. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43096. N4Lid DOI: 10.1601/nm.115

Family *Methanothermaceae* ^{VP} Stetter et al 1982. N4Lid DOI: 10.1601/nm.139

Genus *Methanothermus* ^{VP} Stetter 1982. N4Lid DOI: 10.1601/nm.140

Methanothermus fervidus ^{VP} Stetter 1982. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43054. High-quality 16S rRNA sequence M59145 (RDP), M59145 (Genbank). N4Lid DOI: 10.1601/nm.141

Methanothermus sociabilis ^{VP} Stetter 1986. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 3496. N4Lid DOI: 10.1601/nm.142

Class *Methanococci* ^{VP} Boone 2002. N4Lid DOI: 10.1601/nm.143

Order *Methanococcales* ^{VP} Balch and Wolfe 1981. N4Lid DOI: 10.1601/nm.144

Family *Methanococcaceae* ^{VP} Balch and Wolfe 1981. N4Lid DOI: 10.1601/nm.145

Genus *Methanococcus* ^{AL} Kluyver and van Niel 1936 emend. Barker 1936. N4Lid DOI: 10.1601/nm.146

Methanococcus vannielii ^{AL} Stadtman and Barker 1951. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35089. High-quality 16S rRNA sequence S000536606 (RDP), AY196675 (Genbank). GOLD ID: Gi01309. GCAT ID: 001822_GCAT. Entrez genome id: 17889. Sequenced strain: SB is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.147

Methanococcus aeolicus ^{VP} Kendall et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1280. N4Lid DOI: 10.1601/nm.10137

Methanococcus maripaludis ^{VP} Jones et al. 1984. \approx *Methanococcus deltae* (later heterotypic synonym), links through 10.1601/nm.155. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43000. High-quality 16S rRNA sequence U38484 (RDP), U38484 (Genbank). GOLD ID: Gc00177. GCAT ID: 000433_GCAT. Entrez genome id: 10632. Sequenced strain: S2 is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 4 (GOLD) 2 (NCBI). N4Lid DOI: 10.1601/nm.155

† *Methanococcus deltae* ^{VP} Corder et al. 1988. \approx *Methanococcus maripaludis* (earlier heterotypic synonym), links through 10.1601/nm.155. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35294. High-quality 16S rRNA sequence U38485 (RDP), U38485 (Genbank). N4Lid DOI: 10.1601/nm.148

Methanococcus voltae ^{VP} Balch and Wolfe 1981. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33273. High-quality 16S rRNA sequence S000610984 (RDP), U38461 (Genbank). GOLD ID: Gi00358. GCAT ID: 001794_GCAT. Entrez genome id: 13632. Genome sequence is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 2 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.158

Genus *Methanothermococcus* ^{VP} Whitman 2002. N4Lid DOI: 10.1601/nm.160

Methanothermococcus thermolithotrophicus ^{VP} (Huber et al. 1984) Whitman 2002. <==
Methanococcus thermolithotrophicus (basonym). Synonym links through N4Lid: 10.1601/ex.157. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35097. GOLD ID: Gi00357. GCAT ID: 001793_GCAT. Entrez genome id: 13627. Genome sequence is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.161

† *Methanococcus thermolithotrophicus* ^{VP} Huber et al. 1984. ==> *Methanothermococcus thermolithotrophicus* (new combination). Synonym links through N4Lid: 10.1601/ex.157. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35097. GOLD ID: Gi00357. GCAT ID: 001793_GCAT. Entrez genome id: 13627. Genome sequence is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.157

Methanothermococcus okinawensis ^{VP} Takai et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14208. High-quality 16S rRNA sequence AB057722 (RDP), AB057722 (Genbank). N4Lid DOI: 10.1601/nm.162

Family *Methanocaldococcaceae* ^{VP} Whitman et al 2002. N4Lid DOI: 10.1601/nm.163

Genus *Methanocaldococcus* ^{VP} Whitman 2002. N4Lid DOI: 10.1601/nm.164

Methanocaldococcus fervens ^{VP} (Jeanthon et al. 1999) Whitman 2002. <== *Methanococcus fervens* (basonym). Synonym links through N4Lid: 10.1601/ex.149. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 4213. N4Lid DOI: 10.1601/nm.165

† *Methanococcus fervens* ^{VP} Jeanthon et al. 1999. ==> *Methanocaldococcus fervens* (new combination). Synonym links through N4Lid: 10.1601/ex.149. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 4213. N4Lid DOI: 10.1601/nm.149

Methanocaldococcus indicus ^{VP} L'Haridon et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 15027. High-quality 16S rRNA sequence AF547621 (RDP), AF547621 (Genbank). N4Lid DOI: 10.1601/nm.166

Methanocaldococcus infernus ^{VP} (Jeanthon et al. 1998) Whitman 2002. <== *Methanococcus infernus* (basonym). Synonym links through N4Lid: 10.1601/ex.153. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 11812. N4Lid DOI: 10.1601/nm.167

† *Methanococcus infernus* ^{VP} Jeanthon et al. 1998. ==> *Methanocaldococcus infernus* (new combination). Synonym links through N4Lid: 10.1601/ex.153. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 11812. N4Lid DOI: 10.1601/nm.153

Methanocaldococcus jannaschii ^{VP} (Jones et al. 1984) Whitman 2002. <=> *Methanococcus jannaschii* (basonym). Synonym links through N4Lid: 10.1601/ex.154. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43067. GOLD ID: Gc00004. GCAT ID: 000606_GCAT. Entrez genome id: 102. Sequenced strain: ATCC 43067 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.168

† *Methanococcus jannaschii* ^{VP} Jones et al. 1984. ==> *Methanocaldococcus jannaschii* (new combination). Synonym links through N4Lid: 10.1601/ex.154. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43067. GOLD ID: Gc00004. GCAT ID: 000606_GCAT. Entrez genome id: 102. Sequenced strain: ATCC 43067 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.154

Methanocaldococcus vulcanius ^{VP} (Jeanthon et al. 1999) Whitman 2002. <=> *Methanococcus vulcanius* (basonym). Synonym links through N4Lid: 10.1601/ex.159. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700851. N4Lid DOI: 10.1601/nm.169

† *Methanococcus vulcanius* ^{VP} Jeanthon et al. 1999. ==> *Methanocaldococcus vulcanius* (new combination). Synonym links through N4Lid: 10.1601/ex.159. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700851. N4Lid DOI: 10.1601/nm.159

Genus *Methanotorris* ^{VP} Whitman 2002. N4Lid DOI: 10.1601/nm.170

† *Methanococcus igneus* ^{VP} Burggraf et al. 1990. ==> *Methanotorris igneus* (new combination). Synonym links through N4Lid: 10.1601/ex.152. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 5666. N4Lid DOI: 10.1601/nm.152

Methanotorris igneus ^{VP} (Burggraf et al. 1990) Whitman 2002. <=> *Methanococcus igneus* (basonym). Synonym links through N4Lid: 10.1601/ex.152. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 5666. N4Lid DOI: 10.1601/nm.171

Methanotorris formiciculus ^{VP} Takai et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-687. High-quality 16S rRNA sequence AB100884 (RDP), AB100884 (Genbank). N4Lid 10.1601/nm.8697

Class "Methanomicrobia" N4Lid DOI: 10.1601/nm.172

Order *Methanomicrobiales* ^{VP} Balch and Wolfe 1981. N4Lid DOI: 10.1601/nm.173

Family *Methanomicrobiaceae* ^{VP} Balch and Wolfe 1981. N4Lid DOI: 10.1601/nm.174

Genus *Methanomicrobium* ^{VP} Balch and Wolfe 1981. N4Lid DOI: 10.1601/nm.175

Methanomicrobium mobile ^{VP} (Paynter and Hungate 1968) Balch and Wolfe 1981. <=> *Methanobacterium mobile* (basonym). Synonym links through N4Lid: 10.1601/ex.103. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35094. N4Lid DOI: 10.1601/nm.176

† *Methanobacterium mobile* ^{AL} Paynter and Hungate 1968. ==> *Methanomicrobium mobile* (new combination). Synonym links through N4Lid: 10.1601/ex.103. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35094. N4Lid DOI: 10.1601/nm.103

Genus *Methanoculleus* ^{VP} Maestrojuán et al. 1990. N4Lid DOI: 10.1601/nm.178

Methanoculleus bourgensis ^{VP} corrig. (Ollivier et al. 1986) Maestrojuán et al. 1990. <=> *Methanogenium bourgense* (basonym). Synonym links through N4Lid: 10.1601/ex.194. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43281. High-quality 16S rRNA sequence AF095269 (RDP), AF095269 (Genbank). N4Lid DOI: 10.1601/nm.179

† *Methanogenium bourgense* ^{VP} Ollivier et al. 1986. ==> *Methanoculleus bourgensis* (new combination). Synonym links through N4Lid: 10.1601/ex.194. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43281. High-quality 16S rRNA sequence AF095269 (RDP), AF095269 (Genbank). N4Lid DOI: 10.1601/nm.194

† *Methanoculleus oldenburgensis* ^{VP} Blotevogel et al. 1998. ≈ *Methanoculleus bourgensis* (earlier heterotypic synonym), links through 10.1601/nm.179. Source of type material

recommended for DOE sponsored genome sequencing by the JGI: DSM 6216. N4Lid DOI: 10.1601/nm.182

***Methanoculleus chikugoensis* VP** Dianou et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1270. High-quality 16S rRNA sequence AB038795 (RDP), AB038795 (Genbank). N4Lid DOI: 10.1601/nm.180

***Methanoculleus marisnigri* VP** (Romesser et al. 1981) Maestrojuán et al. 1990. <==
***Methanogenium marisnigri* (basonym)**. Synonym links through N4Lid: 10.1601/ex.199. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35101. High-quality 16S rRNA sequence M59134 (RDP), M59134 (Genbank). GOLD ID: Gi01052. GCAT ID: 001795_GCAT. Entrez genome id: 16330. Sequenced strain: ATCC 35101 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.181

† ***Methanogenium marisnigri* VP** Romesser et al. 1981. ==> ***Methanoculleus marisnigri* (new combination)**. Synonym links through N4Lid: 10.1601/ex.199. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35101. High-quality 16S rRNA sequence M59134 (RDP), M59134 (Genbank). GOLD ID: Gi01052. GCAT ID: 001795_GCAT. Entrez genome id: 16330. Sequenced strain: ATCC 35101 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.199

***Methanoculleus olentangyi* VP** (Corder et al. 1988) Maestrojuán et al. 1990. <== ***Methanogenium olentangyi* (basonym)**. Synonym links through N4Lid: 10.1601/ex.200. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35293. High-quality 16S rRNA sequence AF095270 (RDP), AF095270 (Genbank). N4Lid DOI: 10.1601/nm.183

† ***Methanogenium olentangyi* VP** Corder et al. 1988. ==> ***Methanoculleus olentangyi* (new combination)**. Synonym links through N4Lid: 10.1601/ex.200. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35293. High-quality 16S rRNA sequence AF095270 (RDP), AF095270 (Genbank). N4Lid DOI: 10.1601/nm.200

***Methanoculleus palmolei* VP** Zellner et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 4273. High-quality 16S rRNA sequence Y16382 (RDP), Y16382 (Genbank). N4Lid DOI: 10.1601/nm.184

***Methanoculleus submarinus* VP** Mikucki et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1272. High-quality 16S rRNA sequence AF531178 (RDP), AF531178 (Genbank). N4Lid DOI: 10.1601/nm.185

***Methanoculleus thermophilus* VP** corrig. (Rivard and Smith 1982) Maestrojuán et al. 1990. <==
***Methanogenium thermophilicum* (basonym)**. Synonym links through N4Lid: 10.1601/ex.203. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33837. High-quality 16S rRNA sequence AB065297 (RDP), AB065297 (Genbank). N4Lid DOI: 10.1601/nm.186

† ***Methanogenium thermophilicum* VP** Rivard and Smith 1982. ==> ***Methanoculleus thermophilus* (new combination)**. Synonym links through N4Lid: 10.1601/ex.203. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33837. High-quality 16S rRNA sequence AB065297 (RDP), AB065297 (Genbank). N4Lid DOI: 10.1601/nm.203

† ***Methanogenium frittonii* VP** Harris et al. 1996. ≈ ***Methanoculleus thermophilus* (earlier heterotypic synonym)**, links through 10.1601/nm.186. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 2832. N4Lid DOI: 10.1601/nm.196

Genus ***Methanofollis* VP** Zellner et al. 1999. N4Lid DOI: 10.1601/nm.187

***Methanofollis tationis* VP** (Zabel et al. 1986) Zellner et al. 1999. <== ***Methanogenium tationis* (basonym)**. Synonym links through N4Lid: 10.1601/ex.202. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1078. High-quality 16S rRNA sequence AF095272 (RDP), AF095272 (Genbank). N4Lid DOI: 10.1601/nm.188

† ***Methanogenium tationis* VP** corrig. Zabel et al. 1986. ==> ***Methanofollis tationis* (new combination)**. Synonym links through N4Lid: 10.1601/ex.202. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1078. High-quality 16S rRNA sequence AF095272 (RDP), AF095272 (Genbank). N4Lid DOI: 10.1601/nm.202

Methanofollis aquaemaris ^{VP} Lai and Chen 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14661. High-quality 16S rRNA sequence AF262035 (RDP), AF262035 (Genbank). N4Lid DOI: 10.1601/nm.189

Methanofollis formosanus ^{VP} Wu et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 15483. N4Lid 10.1601/nm.9303

Methanofollis liminatans ^{VP} (Zellner et al. 1990) Zellner et al. 1999. <== *Methanogenium liminatans* (basonym). Synonym links through N4Lid: 10.1601/ex.197. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1165. High-quality 16S rRNA sequence AF095271 (RDP), AF095271 (Genbank). N4Lid DOI: 10.1601/nm.190

† *Methanogenium liminatans* ^{VP} Zellner et al. 1990. ==> *Methanofollis liminatans* (new combination). Synonym links through N4Lid: 10.1601/ex.197. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1165. High-quality 16S rRNA sequence AF095271 (RDP), AF095271 (Genbank). N4Lid DOI: 10.1601/nm.197

Genus *Methanogenium* ^{VP} Romesser et al. 1981. N4Lid DOI: 10.1601/nm.191

Methanogenium cariaci ^{VP} Romesser et al. 1981. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35093. High-quality 16S rRNA sequence M59130 (RDP), M59130 (Genbank). N4Lid DOI: 10.1601/nm.192

Methanogenium frigidum ^{VP} Franzmann et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1287. High-quality 16S rRNA sequence AF009219 (RDP), AF009219 (Genbank). GOLD ID: Gi00359. GCAT ID: 001801_GCAT. Entrez genome id: 13497. Sequenced strain: SMCC 459W is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 2 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.195

Methanogenium marinum ^{VP} Chong et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1294. N4Lid DOI: 10.1601/nm.198

Methanogenium organophilum ^{VP} Widdel et al. 1989. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-914. High-quality 16S rRNA sequence M59131 (RDP), M59131 (Genbank). N4Lid DOI: 10.1601/nm.201

Genus *Methanolacinia* ^{VP} Zellner et al. 1990. N4Lid DOI: 10.1601/nm.204

Methanolacinia paynteri ^{VP} (Rivard et al. 1984) Zellner et al. 1990. <== *Methanomicrobium paynteri* (basonym). Synonym links through N4Lid: 10.1601/ex.177. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33997. N4Lid DOI: 10.1601/nm.205

† *Methanomicrobium paynteri* ^{VP} Rivard et al. 1984. ==> *Methanolacinia paynteri* (new combination). Synonym links through N4Lid: 10.1601/ex.177. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33997. N4Lid DOI: 10.1601/nm.177

Genus *Methanoplanus* ^{VP} Wildgruber et al. 1984. N4Lid DOI: 10.1601/nm.206

Methanoplanus limicola ^{VP} Wildgruber et al. 1984. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35062. High-quality 16S rRNA sequence M59143 (RDP), M59143 (Genbank). N4Lid DOI: 10.1601/nm.207

Methanoplanus endosymbiosus ^{VP} van Bruggen et al. 1986. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 3599. High-quality 16S rRNA sequence Z29435 (RDP), Z29435 (Genbank). N4Lid DOI: 10.1601/nm.208

Methanoplanus petrolearius ^{VP} Ollivier et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 11571. High-quality 16S rRNA sequence U76631 (RDP), U76631 (Genbank). N4Lid DOI: 10.1601/nm.209

Family *Methanocorpusculaceae* ^{VP} Zellner et al 1989. N4Lid DOI: 10.1601/nm.210

Genus *Methanocorpusculum* ^{VP} Zellner et al. 1988. N4Lid DOI: 10.1601/nm.211

Methanocorpusculum parvum ^{VP} Zellner et al. 1988. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43721. High-quality 16S rRNA sequence M59147 (RDP), M59147 (Genbank). N4Lid DOI: 10.1601/nm.212

Methanocorpusculum aggregans ^{VP} (Ollivier et al. 1985) Xun et al. 1989. <== *Methanogenium aggregans* (basonym). Synonym links through N4Lid: 10.1601/ex.193. Source of type material

recommended for DOE sponsored genome sequencing by the JGI: DSM 3027. N4Lid DOI: 10.1601/nm.213

† *Methanogenium aggregans* ^{VP} Ollivier et al. 1985. ==> *Methanocorpusculum aggregans* (new combination). Synonym links through N4Lid: 10.1601/ex.193. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 3027. N4Lid DOI: 10.1601/nm.193

Methanocorpusculum bavaricum ^{VP} Zellner et al. 1989. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-929. High-quality 16S rRNA sequence AF042197 (RDP), AF042197 (Genbank). N4Lid DOI: 10.1601/nm.214

Methanocorpusculum labreanum ^{VP} Zhao et al. 1989. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 4855. High-quality 16S rRNA sequence AF095267 (RDP), AF095267 (Genbank). GOLD ID: Gc00506. GCAT ID: 000103_GCAT. Entrez genome id: 18109. Sequenced strain: Z is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.215

Methanocorpusculum sinense ^{VP} Zellner et al. 1989. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-933. High-quality 16S rRNA sequence AF095268 (RDP), AF095268 (Genbank). N4Lid DOI: 10.1601/nm.216

Family *Methanospirillaceae* ^{VP} Boone et al 2002. N4Lid DOI: 10.1601/nm.217

Genus *Methanospirillum* ^{AL} Ferry et al. 1974. N4Lid DOI: 10.1601/nm.218

Methanospirillum hungatei ^{AL} corrig. Ferry et al. 1974. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27890. GOLD ID: Gc00350. GCAT ID: 000257_GCAT. Entrez genome id: 13015. Sequenced strain: DSM 864 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.219

Family *Incertae sedis 1* ^{NVP} N4Lid DOI: 10.1601/nm.220

Genus *Methanocalculus* ^{VP} Ollivier et al. 1998. N4Lid DOI: 10.1601/nm.221

Methanocalculus halotolerans ^{VP} Ollivier et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1288. High-quality 16S rRNA sequence AF033672 (RDP), AF033672 (Genbank). N4Lid DOI: 10.1601/nm.222

Methanocalculus chunghsingensis ^{VP} Lai et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1167. High-quality 16S rRNA sequence AF347025 (RDP), AF347025 (Genbank). N4Lid DOI: 10.1601/nm.223

Methanocalculus pumilus ^{VP} Mori et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-129. High-quality 16S rRNA sequence AB008853 (RDP), AB008853 (Genbank). N4Lid DOI: 10.1601/nm.224

Methanocalculus taiwanensis ^{VP} Lai et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14648. High-quality 16S rRNA sequence AF172443 (RDP), AF172443 (Genbank). N4Lid DOI: 10.1601/nm.225

Order *Methanosarcinales* ^{VP} Boone et al 2002. N4Lid DOI: 10.1601/nm.226

Family *Methanosarcinaceae* ^{VP} Balch and Wolfe 1981. N4Lid DOI: 10.1601/nm.227

Genus *Methanosarcina* ^{AL} Kluyver and van Niel 1936 emend. Barker 1956. N4Lid DOI: 10.1601/nm.228

Methanosarcina barkeri ^{AL} Schnellen 1947. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43569. High-quality 16S rRNA sequence AJ012094 (RDP), AJ012094 (Genbank). GOLD ID: Gc00295. GCAT ID: 000314_GCAT. Entrez genome id: 103. Sequenced strain: Fusaro is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.229

Methanosarcina acetivorans ^{VP} Sowers et al. 1986. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35395. High-quality 16S rRNA sequence S000528825 (RDP), M59137 (Genbank). GOLD ID: Gc00084. GCAT ID: 000526_GCAT. Entrez genome id: 290. Sequenced strain: ATCC 35395 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 2 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.230

Methanosarcina baltica ^{VP} von Klein et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14042. High-quality 16S rRNA sequence AJ238648 (RDP), AJ238648 (Genbank). N4Lid DOI: 10.1601/nm.231

Methanosarcina frisia ^{VP} (Blotevogel et al. 1986) Blotevogel and Fischer 1989. <==

Methanococcus frisius (basonym). Synonym links through N4Lid: 10.1601/ex.150. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43340. N4Lid DOI: 10.1601/nm.232

† *Methanococcus frisius* ^{VP} Blotevogel et al. 1986. ==> *Methanosarcina frisia* (new combination)

Synonym links through N4Lid: 10.1601/ex.150. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43340. N4Lid DOI: 10.1601/nm.150

Methanosarcina lacustris ^{VP} Simankova et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 13486. High-quality 16S rRNA sequence AF432127 (RDP), AF432127 (Genbank). N4Lid DOI: 10.1601/nm.233

Methanosarcina mazei ^{VP} (Barker 1936) Mah and Kuhn 1984. <== *Methanococcus mazei* (basonym). Synonym links through N4Lid: 10.1601/ex.156. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43340. GOLD ID: Gc00093. GCAT ID: 000517_GCAT. Entrez genome id: 300. Sequenced strain: ATCC BAA-199, DSMZ 3647 is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.234

† *Methanococcus mazei* ^{AL} Barker 1936. ==> *Methanosarcina mazei* (new combination).

Synonym links through N4Lid: 10.1601/ex.156. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 2053. GOLD ID: Gc00093. GCAT ID: 000517_GCAT. Entrez genome id: 300. Sequenced strain: ATCC BAA-199, DSMZ 3647 is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.156

Methanosarcina methanica ^{AL} (Smit 1930) Kluyver and van Niel 1936. Source of type material recommended for DOE sponsored genome sequencing by the JGI: No viable deposit available. N4Lid DOI: 10.1601/nm.235

Methanosarcina semesiae ^{VP} Lyimo et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12914. High-quality 16S rRNA sequence AJ012742 (RDP), AJ012742 (Genbank). N4Lid DOI: 10.1601/nm.236

Methanosarcina siciliae ^{VP} (Stetter and König 1989) Ni et al. 1994. <== *Methanolobus siciliae* (basonym). Synonym links through N4Lid: 10.1601/ex.255. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-931. High-quality 16S rRNA sequence U20153 (RDP), U20153 (Genbank). N4Lid DOI: 10.1601/nm.237

† *Methanolobus siciliae* ^{VP} Stetter and König 1989 in Stetter 1989. ==> *Methanosarcina siciliae* (new combination). Synonym links through N4Lid: 10.1601/ex.255. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-931. High-quality 16S rRNA sequence U20153 (RDP), U20153 (Genbank). N4Lid DOI: 10.1601/nm.255

Methanosarcina thermophila ^{VP} Zinder et al. 1985. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43570. High-quality 16S rRNA sequence M59140 (RDP), M59140 (Genbank). N4Lid DOI: 10.1601/nm.238

Methanosarcina vacuolata ^{VP} Zhilina and Zavarzin 1987. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35090. High-quality 16S rRNA sequence U20150 (RDP), U20150 (Genbank). N4Lid DOI: 10.1601/nm.239

Genus *Methanococcoides* ^{VP} Sowers and Ferry 1985. N4Lid DOI: 10.1601/nm.240

Methanococcoides methyllutens ^{VP} Sowers and Ferry 1985. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33938. High-quality 16S rRNA sequence M59127 (RDP), M59127 (Genbank). N4Lid DOI: 10.1601/nm.241

Methanococcoides alaskense ^{VP} Singh et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 17273. N4Lid 10.1601/nm.9693

Methanococcoides burtonii ^{VP} Franzmann et al. 1993. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1271. High-quality 16S rRNA sequence S000750126 (RDP), X65537 (Genbank). GOLD ID: Gc00366. GCAT ID: 000244_GCAT. Entrez genome id: 9634. Sequenced strain: DSM 6242 is type material. Genome

sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.242

Genus *Methanohalobium* ^{VP} Zhilina and Zavarzin 1988. N4Lid DOI: 10.1601/nm.243

Methanohalobium evestigatum ^{VP} corrig. Zhilina and Zavarzin 1988. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1072. High-quality 16S rRNA sequence U20149 (RDP), U20149 (Genbank). GOLD ID: Gi01749. GCAT ID: 001796_GCAT. Genome sequence is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD). N4Lid DOI: 10.1601/nm.244

Genus *Methanohalophilus* ^{VP} Paterek and Smith 1988. N4Lid DOI: 10.1601/nm.245

Methanohalophilus mahii ^{VP} Paterek and Smith 1988. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35705. High-quality 16S rRNA sequence M59133 (RDP), M59133 (Genbank). N4Lid DOI: 10.1601/nm.246

Methanohalophilus halophilus ^{VP} (Zhilina 1984) Wilharm et al. 1991. <== *Methanococcus halophilus* (basonym). Synonym links through N4Lid: 10.1601/ex.151. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1071. N4Lid DOI: 10.1601/nm.247

† *Methanococcus halophilus* ^{VP} Zhilina 1984. ==> *Methanohalophilus halophilus* (new combination). Synonym links through N4Lid: 10.1601/ex.151. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1071. N4Lid DOI: 10.1601/nm.151

Methanohalophilus portucalensis ^{VP} Boone et al. 1993. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-912. High-quality 16S rRNA sequence AY290717 (RDP), AY290717 (Genbank). N4Lid DOI: 10.1601/nm.249

Genus *Methanolobus* ^{VP} König and Stetter 1983. N4Lid DOI: 10.1601/nm.251

Methanolobus tindarius ^{VP} König and Stetter 1983. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35996. High-quality 16S rRNA sequence M59135 (RDP), M59135 (Genbank). N4Lid DOI: 10.1601/nm.252

Methanolobus bombayensis ^{VP} Kadam et al. 1994. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 7082. High-quality 16S rRNA sequence U20148 (RDP), U20148 (Genbank). N4Lid DOI: 10.1601/nm.253

Methanolobus oregonensis ^{VP} (Liu et al. 1990) Boone 2002. <== *Methanohalophilus oregonensis* (basonym). Synonym links through N4Lid: 10.1601/ex.248. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-928. N4Lid DOI: 10.1601/nm.254

† *Methanohalophilus oregonensis* ^{VP} corrig. Liu et al. 1990. ==> *Methanolobus oregonensis* (new combination). Synonym links through N4Lid: 10.1601/ex.248. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-928. N4Lid DOI: 10.1601/nm.248

Methanolobus taylorii ^{VP} Oremland and Boone 1994. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-911. High-quality 16S rRNA sequence U20154 (RDP), U20154 (Genbank). N4Lid DOI: 10.1601/nm.256

Methanolobus vulcani ^{VP} Stetter et al. 1989 in Stetter 1989. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-932. High-quality 16S rRNA sequence U20155 (RDP), U20155 (Genbank). N4Lid DOI: 10.1601/nm.257

Genus *Methanomethylovorans* ^{VP} Lomans et al. 2004. N4Lid DOI: 10.1601/nm.258

Methanomethylovorans hollandica ^{VP} Lomans et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1290. High-quality 16S rRNA sequence AF120163 (RDP), AF120163 (Genbank). N4Lid DOI: 10.1601/nm.259

Methanomethylovorans thermophila ^{VP} Jiang et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1173. N4Lid DOI: 10.1601/nm.9690

Genus *Methanimicrococcus* ^{VP} corrig. Sprenger et al. 2000. N4Lid DOI: 10.1601/nm.260

Methanimicrococcus blatticola ^{VP} corrig. Sprenger et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-276. High-quality 16S rRNA sequence AJ238002 (RDP), AJ238002 (Genbank). GOLD ID: Gi01583. GCAT ID: 001803_GCAT. Sequenced strain: DSM 13328 is type material. Genome sequencing is

incomplete. Number of genomes of this species sequenced 1 (GOLD). N4Lid DOI: 10.1601/nm.261

Genus *Methanosalsum* ^{VP} Boone and Baker 2002. N4Lid DOI: 10.1601/nm.262

Methanosalsum zhilinae ^{VP} (Mathrani et al. 1988) Boone and Baker 2002. <==

Methanohalophilus zhilinae (basonym). Synonym links through N4Lid: 10.1601/ex.250. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-913. N4Lid DOI: 10.1601/nm.263

† *Methanohalophilus zhilinae* ^{VP} Mathrani et al. 1988. ==> *Methanosalsum zhilinae* (new combination).

Synonym links through N4Lid: 10.1601/ex.250. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-913. N4Lid DOI: 10.1601/nm.250

Family *Methanosaetaceae* ^{VP} Boone et al 2002. N4Lid DOI: 10.1601/nm.264

Genus *Methanosaeta* ^{VP} Patel and Sprott 1990. N4Lid DOI: 10.1601/nm.265

Methanosaeta concili ^{VP} (Patel 1985) Patel and Sprott 1990. <== *Methanothrix concili* (basonym). Synonym links through N4Lid: 10.1601/ex.266. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35969. High-quality 16S rRNA sequence AF414037 (RDP), AF414037 (Genbank). GOLD ID: Gi00081. GCAT ID: 001805_GCAT. Sequenced strain: GP-6 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD). N4Lid DOI: 10.1601/nm.266

† *Methanothrix concili* ^{VP} Patel 1985. ==> *Methanosaeta concili* (new combination). Synonym links through N4Lid: 10.1601/ex.266. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35969. High-quality 16S rRNA sequence AF414037 (RDP), AF414037 (Genbank). GOLD ID: Gi00081. GCAT ID: 001805_GCAT. Sequenced strain: GP-6 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 0 (NCBI). N4Lid 10.1601/nm.9134

† *Methanothrix soehngenii* ^{VP} Huser et al. 1983. ≈ *Methanosaeta concili* (earlier heterotypic synonym), links through 10.1601./nm.266. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35969. High-quality 16S rRNA sequence AF414037 (RDP), AF414037 (Genbank). GOLD ID: Gi00081. GCAT ID: 001805_GCAT. Sequenced strain: GP-6 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 0 (NCBI). N4Lid 10.1601/nm.9110

Methanosaeta harundinacea ^{VP} Ma et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 13211. N4Lid 10.1601/nm.9817

Methanosaeta thermoacetophila ^{VP} (Nozhevnikova and Chudina 1988) Patel and Sprott 1990. <== *Methanothrix thermoacetophila* (basonym). Synonym links through N4Lid: 10.1601/ex.267. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 4774. N4Lid DOI: 10.1601/nm.267

† *Methanothrix thermoacetophila* ^{VP} corrig. Nozhevnikova and Chudina 1988. ==> *Methanosaeta thermoacetophila* (new combination). Synonym links through N4Lid: 10.1601/ex.267. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 4774. N4Lid 10.1601/nm.9151

"*Methanosaeta thermophila*" Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1166. High-quality 16S rRNA sequence AB071701 (RDP), AB071701 (Genbank). GOLD ID: Gc00452. GCAT ID: 000157_GCAT. Entrez genome id: 15765. Sequenced strain: DSM 6194 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.268

Genus *Methanothrix* ^{VP} Huser et al. 1983. N4Lid 10.1601/nm.9109

Methanothrix thermophila ^{VP} Kamagata et al. 1992. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1166. High-quality 16S rRNA sequence AB071701 (RDP), AB071701 (Genbank). GOLD ID: Gc00452. GCAT ID: 000157_GCAT. Entrez genome id: 15765. Sequenced strain: DSM 6194 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid 10.1601/nm.9172

Class *Halobacteria* ^{VP} Grant et al 2002. N4Lid DOI: 10.1601/nm.269

Order Halobacteriales^{VP} Grant and Larsen 1989. N4Lid DOI: 10.1601/nm.270

Family Halobacteriaceae^{AL} Gibbons 1974. N4Lid DOI: 10.1601/nm.271

Genus Halobacterium^{AL} Elazari-Volcani 1957. GOLD ID: Gc00039. GCAT ID: 000571_GCAT. Entrez genome id: 217. Sequenced strain: NRC-1 is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.272

Halobacterium salinarum^{AL} corrig. (Harrison and Kennedy 1922) Elazari-Volcani 1957. \approx **Halobacterium cutirubrum** (later heterotypic synonym), links through 10.1601./nm.273. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33170. High-quality 16S rRNA sequence AJ496185 (RDP), AJ496185 (Genbank). GOLD ID: Gi00290. GCAT ID: 001782_GCAT. Entrez genome id: 106. Sequenced strain: RI DSM671, ATCC 19700 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.273

Halobacterium cutirubrum^{AL} (Lochhead 1934) Elazari-Volcani 1957. \approx **Halobacterium salinarum** (earlier heterotypic synonym), links through 10.1601./nm.273. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33170. N4Lid DOI: 10.1601/nm.274

Halobacterium halobium^{AL} (Petter 1931) Elazari-Volcani 1957. Source of type material recommended for DOE sponsored genome sequencing by the JGI: NCIMB 8720. N4Lid DOI: 10.1601/nm.277

Halobacterium noricense^{VP} Gruber et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-852. N4Lid 10.1601/nm.9396

Genus Halalkalicoccus^{VP} Xue et al. 2005. N4Lid 10.1601/nm.9764

Halalkalicoccus tibetensis^{VP} Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 11890. High-quality 16S rRNA sequence AF435112 (RDP), AF435112 (Genbank). N4Lid 10.1601/nm.9691

Genus Haloarcula^{VP} Torreblanca et al. 1986. N4Lid DOI: 10.1601/nm.286

Haloarcula vallismortis^{VP} (Gonzalez et al. 1979) Torreblanca et al. 1986. $<==$ **Halobacterium vallismortis** (basonym). Synonym links through N4Lid: 10.1601/ex.284. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29715. N4Lid DOI: 10.1601/nm.287

† Halobacterium vallismortis^{AL} Gonzalez et al. 1979. $=>$ **Haloarcula vallismortis** (new combination). Synonym links through N4Lid: 10.1601/ex.284. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29715. N4Lid DOI: 10.1601/nm.284

Haloarcula argentinensis^{VP} Ihara et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700875. High-quality 16S rRNA sequence D50849 (RDP), D50849 (Genbank). N4Lid DOI: 10.1601/nm.288

Haloarcula hispanica^{VP} Juez et al. 1986. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33960. High-quality 16S rRNA sequence U68541 (RDP), U68541 (Genbank). N4Lid DOI: 10.1601/nm.289

Haloarcula japonica^{VP} Takashina et al. 1991. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49778. High-quality 16S rRNA sequence D28872 (RDP), D28872 (Genbank). GOLD ID: Gi01845. GCAT ID: 000839_GCAT. Sequenced strain: TR-1 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.290

Haloarcula marismortui^{VP} (ex Volcani 1940) Oren et al. 1990. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43049. GOLD ID: Gc00231. GCAT ID: 000379_GCAT. Entrez genome id: 105. Sequenced strain: ATCC 43049 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.291

Haloarcula quadrata^{VP} Oren et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700850. High-quality 16S rRNA sequence AB010964 (RDP), AB010964 (Genbank). N4Lid DOI: 10.1601/nm.293

Genus Halobaculum^{VP} Oren et al. 1995. N4Lid DOI: 10.1601/nm.294

Halobaculum gomorrense ^{VP} Oren et al. 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700876. GOLD ID: Gi00721. GCAT ID: 001784_GCAT. Entrez genome id: 13229. Genome sequence is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.295

Genus *Halobiforma* ^{VP} Hezayen et al. 2002. N4Lid DOI: 10.1601/nm.296

Halobiforma haloterrestris ^{VP} Hezayen et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 13078. High-quality 16S rRNA sequence AF333760 (RDP), AF333760 (Genbank). N4Lid DOI: 10.1601/nm.297

Halobiforma lacisalsi ^{VP} Xu et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 12983. GOLD ID: Gi01397. GCAT ID: 001783_GCAT. Entrez genome id: 16192. Sequenced strain: JCM 12983 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid 10.1601/nm.9565

Halobiforma nitratireducens ^{VP} (Xin et al. 2001) Hezayen et al. 2002. <=> *Natronobacterium nitratireducens* (basonym). Synonym links through N4Lid: 10.1601/ex.347. Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 10879. High-quality 16S rRNA sequence AB045012 (RDP), AB045012 (Genbank). N4Lid DOI: 10.1601/nm.298

† *Natronobacterium nitratireducens* ^{VP} Xin et al. 2001. ==> *Halobiforma nitratireducens* (new combination). Synonym links through N4Lid: 10.1601/ex.347. Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 10879. High-quality 16S rRNA sequence AB045012 (RDP), AB045012 (Genbank). N4Lid DOI: 10.1601/nm.347

Genus *Halococcus* ^{AL} Schoop 1935. N4Lid DOI: 10.1601/nm.299

Halococcus morrhuae ^{AL} (Farlow 1880) Kocur and Hodgkiss 1973. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 17082. High-quality 16S rRNA sequence D11106 (RDP), D11106 (Genbank). N4Lid DOI: 10.1601/nm.300

Halococcus dombrowskii ^{VP} Stan-Lotter et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-364. High-quality 16S rRNA sequence AJ420376 (RDP), AJ420376 (Genbank). N4Lid DOI: 10.1601/nm.301

Halococcus hamelinensis ^{VP} Goh et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 12892. N4Lid DOI: 10.1601/nm.10084

Halococcus saccharolyticus ^{VP} Montero et al. 1990. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49257. High-quality 16S rRNA sequence AB004876 (RDP), AB004876 (Genbank). N4Lid DOI: 10.1601/nm.302

Halococcus salifodinae ^{VP} Denner et al. 1994. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51437. High-quality 16S rRNA sequence Z28387 (RDP), Z28387 (Genbank). N4Lid DOI: 10.1601/nm.303

Genus *Haloferax* ^{VP} Torreblanca et al. 1986. N4Lid DOI: 10.1601/nm.305

Haloferax volcanii ^{VP} (Mullakhanbhai and Larsen 1975) Torreblanca et al. 1986. <=> *Halobacterium volcanii* (basonym). Synonym links through N4Lid: 10.1601/ex.285. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29605. GOLD ID: Gi00292. GCAT ID: 001786_GCAT. Entrez genome id: 12524. Sequenced strain: DS2 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 2 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.306

† *Halobacterium volcanii* ^{AL} Mullakhanbhai and Larsen 1975. ==> *Haloferax volcanii* (new combination). Synonym links through N4Lid: 10.1601/ex.285. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29605. GOLD ID: Gi00292. GCAT ID: 001786_GCAT. Entrez genome id: 12524. Sequenced strain: DS2 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 2 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.285

Haloferax alexandrinus ^{VP} Asker and Ohta 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: IFO 16590. High-quality 16S rRNA sequence AB037474 (RDP), AB037474 (Genbank). N4Lid DOI: 10.1601/nm.307

Haloferax denitrificans ^{VP} (Tomlinson et al. 1986) Tindall et al. 1989. <=> *Halobacterium denitrificans* (basonym). Synonym links through N4Lid: 10.1601/ex.275. Source of type material

recommended for DOE sponsored genome sequencing by the JGI: ATCC 35960. N4Lid DOI: 10.1601/nm.308

† *Halobacterium denitrificans* ^{VP} Tomlinson et al. 1986. ==> *Haloferax denitrificans* (new combination). Synonym links through N4Lid: 10.1601/ex.275. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35960. N4Lid DOI: 10.1601/nm.275

Haloferax gibbonsii ^{VP} Juez et al. 1986. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33959. High-quality 16S rRNA sequence D13378 (RDP), D13378 (Genbank). N4Lid DOI: 10.1601/nm.309

Haloferax lucentense ^{VP} corrig. Gutierrez et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14919. High-quality 16S rRNA sequence AB081732 (RDP), AB081732 (Genbank). N4Lid DOI: 10.1601/nm.310

Haloferax mediterranei ^{VP} (Rodriguez-Valera et al. 1983) Torreblanca et al. 1987. <== *Halobacterium mediterranei* (basonym). Synonym links through N4Lid: 10.1601/ex.279. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33500. N4Lid DOI: 10.1601/nm.311

† *Halobacterium mediterranei* ^{VP} Rodriguez-Valera et al. 1983. ==> *Haloferax mediterranei* (new combination). Synonym links through N4Lid: 10.1601/ex.279. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33500. N4Lid DOI: 10.1601/nm.279

Haloferax sulfurifontis ^{VP} Elshahed et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-897. High-quality 16S rRNA sequence AY458601 (RDP), AY458601 (Genbank). N4Lid 10.1601/nm.8603

Genus *Halogeometricum* ^{VP} Montalvo-Rodríguez et al. 1998. N4Lid DOI: 10.1601/nm.312

Halogeometricum borinquense ^{VP} Montalvo-Rodríguez et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700274. High-quality 16S rRNA sequence AF002984 (RDP), AF002984 (Genbank). N4Lid DOI: 10.1601/nm.313

Genus *Halomicromonium* ^{VP} Oren et al. 2002. N4Lid DOI: 10.1601/nm.314

Halomicromonium mukohataei ^{VP} (Ihara et al. 1997) Oren et al. 2002. <== *Haloarcula mukohataei* (basonym). Synonym links through N4Lid: 10.1601/ex.292. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700874. N4Lid DOI: 10.1601/nm.315

† *Haloarcula mukohataei* ^{VP} Ihara et al. 1997. ==> *Halomicromonium mukohataei* (new combination). Synonym links through N4Lid: 10.1601/ex.292. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700874. N4Lid DOI: 10.1601/nm.292

Genus *Halostagnicola* ^{VP} Castillo et al. 2006. N4Lid DOI: 10.1601/nm.10136

Halostagnicola larsenii ^{VP} Castillo et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 17691. High-quality 16S rRNA sequence AM117571 (RDP), AM117571 (Genbank). N4Lid DOI: 10.1601/nm.10135

Genus *Halorhabdus* ^{VP} Wainø et al. 2000. N4Lid DOI: 10.1601/nm.316

Halorhabdus utahensis ^{VP} Wainø et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12940. High-quality 16S rRNA sequence AF071880 (RDP), AF071880 (Genbank). N4Lid DOI: 10.1601/nm.317

Genus *Halorubrum* ^{VP} McGenity and Grant 1996. ≈ *Halorubrobacterium* (earlier synonym).
Synonym links through N4Lid: 10.1601/nm.318. N4Lid DOI: 10.1601/nm.318

Halorubrum saccharovorum ^{VP} (Tomlinson and Hochstein 1977) McGenity and Grant 1996.
<== *Halobacterium saccharovorum* (basonym). . ==> *Halorubrobacterium saccharovorum* (new combination). Synonym links through N4Lid: 10.1601/ex.319. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29252. High-quality 16S rRNA sequence U17364 (RDP), U17364 (Genbank). N4Lid DOI: 10.1601/nm.319

† *Halobacterium saccharovorum* ^{AL} Tomlinson and Hochstein 1977. ==> *Halorubrum saccharovorum* (new combination). Synonym links through N4Lid: 10.1601/ex.319. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29252. High-quality 16S rRNA sequence U17364 (RDP), U17364 (Genbank). N4Lid DOI: 10.1601/nm.281

† *Halorubrobacterium saccharovorum* ^{VP} (Tomlinson and Hochstein 1977) Kamekura and Dyall-Smith 1996. <== *Halobacterium saccharovorum* (basonym). Synonym links through N4Lid: 10.1601/ex.319. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29252. High-quality 16S rRNA sequence U17364 (RDP), U17364 (Genbank). N4Lid 10.1601/nm.9190

Halorubrum aidingense ^{VP} Cui et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 13560. N4Lid DOI: 10.1601/nm.10140

Halorubrum alkaliphilum ^{VP} Feng et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 12358. High-quality 16S rRNA sequence AY510708 (RDP), AY510708 (Genbank). N4Lid 10.1601/nm.8609

Halorubrum coriense ^{VP} (Kamekura and Dyall-Smith 1996) Oren and Ventosa 1996. <== *Halorubrobacterium coriense* (basonym). Synonym links through N4Lid: 10.1601/ex.320. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 10284. High-quality 16S rRNA sequence L00922 (RDP), L00922 (Genbank). N4Lid DOI: 10.1601/nm.320

† *Halorubrobacterium coriense* ^{VP} corrig. Kamekura and Dyall-Smith 1996. ==> *Halorubrum coriense* (new combination). Synonym links through N4Lid: 10.1601/ex.320. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 10284. High-quality 16S rRNA sequence L00922 (RDP), L00922 (Genbank). N4Lid 10.1601/nm.9194

Halorubrum distributum ^{VP} (Zvyagintseva and Tarasov 1989) Oren and Ventosa 1996. <== *Halobacterium distributum* (basonym). . ==> *Halorubrobacterium distributum* (new combination). Synonym links through N4Lid: 10.1601/ex.321. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51197. High-quality 16S rRNA sequence D63572 (RDP), D63572 (Genbank). N4Lid DOI: 10.1601/nm.321

† *Halobacterium distributum* ^{VP} corrig. Zvyagintseva and Tarasov 1989. ==> *Halorubrum distributum* (new combination). Synonym links through N4Lid: 10.1601/ex.321. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51197. High-quality 16S rRNA sequence D63572 (RDP), D63572 (Genbank). N4Lid DOI: 10.1601/nm.276

† *Halorubrobacterium distributum* ^{VP} (Zvyagintseva and Tarasov 1989) Kamekura and Dyall-Smith 1996. <== *Halobacterium distributum* (basonym). Synonym links through N4Lid: 10.1601/ex.321. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51197. High-quality 16S rRNA sequence D63572 (RDP), D63572 (Genbank). N4Lid 10.1601/nm.9193

Halorubrum ezzemoulene ^{VP} Kharroub et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 17463. N4Lid DOI: 10.1601/nm.10138

Halorubrum lacusprofundi ^{VP} (Franzmann et al. 1989) McGenity and Grant 1996. <== *Halobacterium lacusprofundi* (basonym). . ==> *Halorubrobacterium lacusprofundi* (new combination). Synonym links through N4Lid: 10.1601/ex.322. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49239. High-quality 16S rRNA sequence U17365 (RDP), X82170 (Genbank). GOLD ID: Gi00720. GCAT ID: 001790_GCAT. Entrez genome id: 13235. Sequenced strain: ATCC 49239 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 2 (GOLD) 2 (NCBI). N4Lid DOI: 10.1601/nm.322

† *Halobacterium lacusprofundi* ^{VP} Franzmann et al. 1989. ==> *Halorubrum lacusprofundi* (new combination). Synonym links through N4Lid: 10.1601/ex.322. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49239. High-quality 16S rRNA sequence U17365 (RDP), X82170 (Genbank). GOLD ID: Gi00720. GCAT ID: 001790_GCAT. Entrez genome id: 13235. Sequenced strain: ATCC 49239 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 2 (GOLD) 2 (NCBI). N4Lid DOI: 10.1601/nm.278

† *Halorubrobacterium lacusprofundi* ^{VP} (Franzmann et al. 1989) Kamekura and Dyall-Smith 1996. <== *Halobacterium lacusprofundi* (basonym). Synonym links through N4Lid: 10.1601/ex.322. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49239. High-quality 16S rRNA sequence U17365 (RDP), X82170 (Genbank). GOLD ID: Gi00720. GCAT ID: 001790_GCAT. Entrez genome id: 13235. Sequenced strain: ATCC 49239 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 2 (GOLD) 2 (NCBI). N4Lid 10.1601/nm.9191

Halorubrum lipolyticum ^{VP} Cui et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 13559. N4Lid DOI: 10.1601/nm.10139

Halorubrum sodomense ^{VP} (Oren 1983) McGenity and Grant 1996. <== ***Halobacterium sodomense*** (basonym). ***Halorubrobacterium sodomense*** (new combination). Synonym links through N4Lid: 10.1601/ex.323. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33755. High-quality 16S rRNA sequence D13379 (RDP), D13379 (Genbank). N4Lid DOI: 10.1601/nm.323

† ***Halobacterium sodomense*** ^{VP} Oren 1983. ==> ***Halorubrum sodomense*** (new combination). Synonym links through N4Lid: 10.1601/ex.323. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33755. High-quality 16S rRNA sequence D13379 (RDP), D13379 (Genbank). N4Lid DOI: 10.1601/nm.282

† ***Halorubrobacterium sodomense*** ^{VP} (Oren 1983) Kamekura and Dyall-Smith 1996. <== ***Halobacterium sodomense*** (basonym). Synonym links through N4Lid: 10.1601/ex.323. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33755. High-quality 16S rRNA sequence D13379 (RDP), D13379 (Genbank). N4Lid 10.1601/nm.9192

Halorubrum tebenquichense ^{VP} Lizama et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14210. High-quality 16S rRNA sequence AJ276887 (RDP), AJ276887 (Genbank). N4Lid DOI: 10.1601/nm.324

Halorubrum terrestre ^{VP} Ventosa et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 10247. High-quality 16S rRNA sequence AB090169 (RDP), AB090169 (Genbank). N4Lid DOI: 10.1601/nm.325

Halorubrum tibetense ^{VP} Fan et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 11889. High-quality 16S rRNA sequence AY149598 (RDP), AY149598 (Genbank). N4Lid 10.1601/nm.8610

Halorubrum trapanicum ^{VP} (Petter 1931) McGenity and Grant 1996. <== ***Halobacterium trapanicum*** (basonym). Synonym links through N4Lid: 10.1601/ex.283. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43102. N4Lid DOI: 10.1601/nm.326

† ***Halobacterium trapanicum*** ^{AL} (Petter 1931) Elazari-Volcani 1957. ==> ***Halorubrum trapanicum*** (new combination). Synonym links through N4Lid: 10.1601/ex.283. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43102. N4Lid DOI: 10.1601/nm.283

Halorubrum vacuolatum ^{VP} (Mwatha and Grant 1993) Kamekura et al. 1997. <== ***Natronobacterium vacuolatum*** (basonym). Synonym links through N4Lid: 10.1601/ex.349. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51376. N4Lid DOI: 10.1601/nm.327

† ***Natronobacterium vacuolatum*** ^{VP} corrig. Mwatha and Grant 1993. ==> ***Halorubrum vacuolatum*** (new combination). Synonym links through N4Lid: 10.1601/ex.349. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51376. N4Lid DOI: 10.1601/nm.349

Halorubrum xinjiangense ^{VP} Feng et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 12388. High-quality 16S rRNA sequence AY510707 (RDP), AY510707 (Genbank). N4Lid 10.1601/nm.8611

Genus † ***Halorubrobacterium*** ^{VP} Kamekura and Dyall-Smith 1996. ≈ ***Halorubrum*** (later synonym).
Synonym links through N4Lid: 10.1601/nm.318. N4Lid 10.1601/nm.9189

Genus ***Halosimplex*** ^{VP} Vreeland et al. 2003. N4Lid DOI: 10.1601/nm.328

Halosimplex carlsbadense ^{VP} Vreeland et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-75. High-quality 16S rRNA sequence AF320480 (RDP), AF320480 (Genbank). N4Lid DOI: 10.1601/nm.329

Genus ***Haloterrigena*** ^{VP} Ventosa et al. 1999. N4Lid DOI: 10.1601/nm.330

Haloterrigena thermotolerans ^{VP} Montalvo-Rodríguez et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700275. High-quality 16S rRNA sequence AF115478 (RDP), AF115478 (Genbank). N4Lid DOI: 10.1601/nm.332

† ***Halococcus turkmenicus*** ^{VP} Zvyagintseva and Tarasov 1989. ==> ***Haloterrigena turkmenica*** (new combination). Synonym links through N4Lid: 10.1601/ex.304. Source of type material

recommended for DOE sponsored genome sequencing by the JGI: ATCC 51198. N4Lid DOI: 10.1601/nm.304

Haloterrigena turkmenica ^{VP} (Zvyagintseva and Tarasov 1989) Ventosa et al. 1999. <==

Halococcus turkmenicus (basonym). Synonym links through N4Lid: 10.1601/ex.304. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51198. N4Lid DOI: 10.1601/nm.331

Haloterrigena longa ^{VP} Cui et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 13562. N4Lid DOI: 10.1601/nm.10204

Haloterrigena limicola ^{VP} Cui et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 13563. N4Lid DOI: 10.1601/nm.10205

Haloterrigena saccharevitans ^{VP} Xu et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 11222. N4Lid 10.1601/nm.9694

Genus Halovivax ^{VP} Castillo et al. 2006. N4Lid 10.1601/nm.9970

Halovivax asiaticus ^{VP} Castillo et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: CECT 7098. High-quality 16S rRNA sequence AM039978 (RDP), AM039978 (Genbank). N4Lid 10.1601/nm.9969

Genus Natrialba ^{VP} Kamekura and Dyall-Smith 1996. N4Lid DOI: 10.1601/nm.333

Natrialba asiatica ^{VP} Kamekura and Dyall-Smith 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700177. High-quality 16S rRNA sequence D14123 (RDP), D14123 (Genbank). GOLD ID: Gi00719. GCAT ID: 001254_GCAT. Entrez genome id: 13382. Genome sequence is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.334

Natrialba aegyptia ^{VP} corrig. Hezayen et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 13077. High-quality 16S rRNA sequence AF251941 (RDP), AF251941 (Genbank). N4Lid DOI: 10.1601/nm.335

Natrialba chahannaoensis ^{VP} Xu et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 10990. High-quality 16S rRNA sequence AJ004806 (RDP), AJ004806 (Genbank). N4Lid DOI: 10.1601/nm.336

Natrialba hulunbeirensis ^{VP} Xu et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 10989. High-quality 16S rRNA sequence AF262026 (RDP), AF262026 (Genbank). N4Lid DOI: 10.1601/nm.337

Natrialba magadii ^{VP} (Tindall et al. 1984) Kamekura et al. 1997. <== *Natronobacterium magadii* (basonym). Synonym links through N4Lid: 10.1601/ex.346. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43099. High-quality 16S rRNA sequence X72495 (RDP), X72495 (Genbank). N4Lid DOI: 10.1601/nm.338

† *Natronobacterium magadii* ^{VP} Tindall et al. 1984. ==> *Natrialba magadii* (new combination). Synonym links through N4Lid: 10.1601/ex.346. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43099. High-quality 16S rRNA sequence X72495 (RDP), X72495 (Genbank). N4Lid DOI: 10.1601/nm.346

Natrialba taiwanensis ^{VP} Hezayen et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12281. High-quality 16S rRNA sequence D14124 (RDP), D14124 (Genbank). N4Lid DOI: 10.1601/nm.339

Genus Natrinema ^{VP} McGenity et al. 1998. N4Lid DOI: 10.1601/nm.340

Natinema pellirubrum ^{VP} McGenity et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: CIP 106293. High-quality 16S rRNA sequence AJ002947 (RDP), AJ002947 (Genbank). N4Lid DOI: 10.1601/nm.341

Natinema altunense ^{VP} Xu et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 12890. N4Lid 10.1601/nm.9406

Natinema pallidum ^{VP} McGenity et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: CIP 106292. High-quality 16S rRNA sequence AJ002949 (RDP), AJ002949 (Genbank). N4Lid DOI: 10.1601/nm.342

Natinema versiforme ^{VP} Xin et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 10478. High-quality 16S rRNA sequence AB023426 (RDP), AB023426 (Genbank). N4Lid DOI: 10.1601/nm.343

Genus *Natronobacterium* ^{VP} Tindall et al. 1984. N4Lid DOI: 10.1601/nm.344

Natronobacterium gregoryi ^{VP} Tindall et al. 1984. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43098. High-quality 16S rRNA sequence D87970 (RDP), D87970 (Genbank). N4Lid DOI: 10.1601/nm.345

Genus *Natronococcus* ^{VP} Tindall et al. 1984. N4Lid DOI: 10.1601/nm.350

Natronococcus occultus ^{VP} Tindall et al. 1984. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43101. High-quality 16S rRNA sequence Z28378 (RDP), Z28378 (Genbank). N4Lid DOI: 10.1601/nm.351

Natronococcus amylolyticus ^{VP} Kanai et al. 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51971. High-quality 16S rRNA sequence D43628 (RDP), D43628 (Genbank). N4Lid DOI: 10.1601/nm.352

Genus *Natronolimnobius* ^{VP} Itoh et al. 2005. N4Lid 10.1601/nm.9665

Natronolimnobius baerhuensis ^{VP} Itoh et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 12253. High-quality 16S rRNA sequence AB125106 (RDP), AB125106 (Genbank). N4Lid 10.1601/nm.9663

Natronolimnobius innermongolicus ^{VP} Itoh et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 12255. High-quality 16S rRNA sequence S000247015 (RDP), AB123108 (Genbank). N4Lid 10.1601/nm.9664

Genus *Natronomonas* ^{VP} Kamekura et al. 1997. N4Lid DOI: 10.1601/nm.353

Natronomonas pharaonis ^{VP} (Soliman and Trüper 1983) Kamekura et al. 1997. <==

Halobacterium pharaonis (basonym). Synonym links through N4Lid: 10.1601/ex.280. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35678. GOLD ID: Gc00301. GCAT ID: 000309_GCAT. Entrez genome id: 15742. Sequenced strain: ATCC 35678 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.354

† *Natronobacterium pharaonis* ^{VP} (Soliman and Trüper 1983) Tindall et al. 1984. <==

Halobacterium pharaonis (basonym). *Natronomonas pharaonis* (new combination). Synonym links through N4Lid: 10.1601/ex.280. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35678. GOLD ID: Gc00301. GCAT ID: 000309_GCAT. Entrez genome id: 15742. Sequenced strain: ATCC 35678 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.348

† *Halobacterium pharaonis* ^{VP} Soliman and Trüper 1983. ==> *Natronobacterium pharaonis* (new combination). Synonym links through N4Lid: 10.1601/ex.280. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35678. GOLD ID: Gc00301. GCAT ID: 000309_GCAT. Entrez genome id: 15742. Sequenced strain: ATCC 35678 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.280

Genus *Natronorubrum* ^{VP} Xu et al. 1999. N4Lid DOI: 10.1601/nm.355

Natronorubrum bangense ^{VP} Xu et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: CIP 107015. High-quality 16S rRNA sequence Y14028 (RDP), Y14028 (Genbank). N4Lid DOI: 10.1601/nm.356

Natronorubrum aibicense ^{VP} Cui et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 13488. N4Lid DOI: 10.1601/nm.10134

Natronorubrum tibetense ^{VP} Xu et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: CIP 107016. High-quality 16S rRNA sequence AB005656 (RDP), AB005656 (Genbank). N4Lid DOI: 10.1601/nm.357

Class *Thermoplasmata* ^{VP} Reysenbach 2002. N4Lid DOI: 10.1601/nm.358

Order *Thermoplasmatales* ^{VP} Reysenbach 2002. N4Lid DOI: 10.1601/nm.359

Family *Thermoplasmataceae* ^{VP} Reysenbach 2002. N4Lid DOI: 10.1601/nm.360

Genus *Thermoplasma* ^{AL} Darland et al. 1970. N4Lid DOI: 10.1601/nm.361

Thermoplasma acidophilum ^{AL} Darland et al. 1970. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25905. High-quality 16S rRNA sequence M38637 (RDP), M38637 (Genbank). GOLD ID: Gc00036. GCAT ID: 000574_GCAT. Entrez

genome id: 110. Sequenced strain: DSM 1728 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.362

Thermoplasma volcanium ^{VP} Segerer et al. 1988. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51530. High-quality 16S rRNA sequence AJ299215 (RDP), AJ299215 (Genbank). GOLD ID: Gc00042. GCAT ID: 000568_GCAT. Entrez genome id: 206. Sequenced strain: GSS1 is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.363

Family *Picrophilaceae* ^{VP} Schleper et al 1996. N4Lid DOI: 10.1601/nm.364

Genus *Picrophilus* ^{VP} Schleper et al. 1996. N4Lid DOI: 10.1601/nm.365

Picrophilus oshimae ^{VP} Schleper et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700036. High-quality 16S rRNA sequence X84901 (RDP), X84901 (Genbank). N4Lid DOI: 10.1601/nm.366

Picrophilus torridus ^{VP} Zillig et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 9790. GOLD ID: Gc00190. GCAT ID: 000420_GCAT. Entrez genome id: 10641. Sequenced strain: ATCC 700027 is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.367

Family "Feroplasmaceae" N4Lid DOI: 10.1601/nm.368

Genus *Feroplasma* ^{VP} Golyshina et al. 2000. N4Lid DOI: 10.1601/nm.369

Feroplasma acidiphilum ^{VP} Golyshina et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12658. High-quality 16S rRNA sequence AJ224936 (RDP), AJ224936 (Genbank). N4Lid DOI: 10.1601/nm.370

Class *Thermococci* ^{VP} Zillig and Reysenbach 2002. N4Lid DOI: 10.1601/nm.371

Order *Thermococcales* ^{VP} Zillig et al 1988. N4Lid DOI: 10.1601/nm.372

Family *Thermococcaceae* ^{VP} Zillig et al 1988. N4Lid DOI: 10.1601/nm.373

Genus *Thermococcus* ^{VP} Zillig 1983. GOLD ID: Gi01465. GCAT ID: 000931_GCAT. Sequenced strain: AM4 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 2 (GOLD). N4Lid DOI: 10.1601/nm.374

Thermococcus celer ^{VP} Zillig 1983. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35543. High-quality 16S rRNA sequence M21529 (RDP), M21529 (Genbank). N4Lid DOI: 10.1601/nm.375

Thermococcus barossii ^{VP} Duffaud et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1085. N4Lid 10.1601/nm.9301

Thermococcus coalescens ^{VP} Kuwabara et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 16538. N4Lid 10.1601/nm.9692

Thermococcus acidaminovorans ^{VP} Dirmeyer et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 11906. High-quality 16S rRNA sequence Y15935 (RDP), Y15935 (Genbank). N4Lid DOI: 10.1601/nm.376

Thermococcus aegaeus ^{VP} corrig. Arab et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12767. High-quality 16S rRNA sequence AJ012643 (RDP), AJ012643 (Genbank). N4Lid DOI: 10.1601/nm.377

Thermococcus aggregans ^{VP} Canganella et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12819. High-quality 16S rRNA sequence Y08384 (RDP), Y08384 (Genbank). N4Lid DOI: 10.1601/nm.378

Thermococcus alcaliphilus ^{VP} Keller et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 10322. High-quality 16S rRNA sequence AB055121 (RDP), AB055121 (Genbank). N4Lid DOI: 10.1601/nm.379

Thermococcus atlanticus ^{VP} Cambon-Bonavita et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 15226. High-quality 16S rRNA sequence AJ310754 (RDP), AJ310754 (Genbank). N4Lid 10.1601/nm.8883

Thermococcus barophilus ^{VP} Marteinsson et al.1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 11836. High-quality 16S rRNA sequence U82237 (RDP), U82237 (Genbank). N4Lid DOI: 10.1601/nm.380

Thermococcus chitonophagus ^{VP} Huber and Stetter 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 10152. High-quality 16S rRNA sequence X99570 (RDP), X99570 (Genbank). N4Lid DOI: 10.1601/nm.381

*Thermococcus fumicola*ns ^{VP} Godfroy and Meunier 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700469. High-quality 16S rRNA sequence Z70250 (RDP), Z70250 (Genbank). N4Lid DOI: 10.1601/nm.382

Thermococcus gammatolerans ^{VP} Jolivet et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 15229. High-quality 16S rRNA sequence AF479014 (RDP), AF479014 (Genbank). N4Lid DOI: 10.1601/nm.383

Thermococcus gorgonarius ^{VP} Miroshnichenko et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700654. High-quality 16S rRNA sequence AY099177 (RDP), AY099177 (Genbank). N4Lid DOI: 10.1601/nm.384

Thermococcus guaymasensis ^{VP} Canganella et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 11113. High-quality 16S rRNA sequence Y08385 (RDP), Y08385 (Genbank). N4Lid DOI: 10.1601/nm.385

Thermococcus hydrothermalis ^{VP} Godfroy et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: CNCMI 1319. High-quality 16S rRNA sequence Z70244 (RDP), Z70244 (Genbank). N4Lid DOI: 10.1601/nm.386

Thermococcus kodakarensis ^{VP} corrug. Atomi et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-918. GOLD ID: Gc00248. GCAT ID: 000361_GCAT. Entrez genome id: 13213. Sequenced strain: KOD1 is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid 10.1601/nm.9404

Thermococcus litoralis ^{VP} Neuner et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51850. N4Lid DOI: 10.1601/nm.387

Thermococcus pacificus ^{VP} Miroshnichenko et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700653. High-quality 16S rRNA sequence Y16227 (RDP), Y16227 (Genbank). N4Lid DOI: 10.1601/nm.388

Thermococcus peptonophilus ^{VP} González et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700098. High-quality 16S rRNA sequence D37982 (RDP), D37982 (Genbank). N4Lid DOI: 10.1601/nm.389

Thermococcus profundus ^{VP} Kobayashi and Horikoshi 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51592. High-quality 16S rRNA sequence Z75233 (RDP), Z75233 (Genbank). N4Lid DOI: 10.1601/nm.390

Thermococcus sibiricus ^{VP} Miroshnichenko et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12597. High-quality 16S rRNA sequence AJ238992 (RDP), AJ238992 (Genbank). N4Lid DOI: 10.1601/nm.391

Thermococcus siculi ^{VP} Grote et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-270. High-quality 16S rRNA sequence AB010893 (RDP), AB010893 (Genbank). N4Lid DOI: 10.1601/nm.392

Thermococcus stetteri ^{VP} Miroshnichenko 1990. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 5262. High-quality 16S rRNA sequence Z75240 (RDP), Z75240 (Genbank). N4Lid DOI: 10.1601/nm.393

Thermococcus waiotapuensis ^{VP} González et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12768. High-quality 16S rRNA sequence AF134982 (RDP), AF134982 (Genbank). N4Lid DOI: 10.1601/nm.394

Thermococcus zilligii ^{VP} Ronimus et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700529. High-quality 16S rRNA sequence U76534 (RDP), U76534 (Genbank). N4Lid DOI: 10.1601/nm.395

Genus Palaeococcus ^{VP} Takai et al. 2000. N4Lid DOI: 10.1601/nm.396

Palaeococcus ferrophilus ^{VP} Takai et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-128. High-quality 16S rRNA sequence AB019239 (RDP), AB019239 (Genbank). N4Lid DOI: 10.1601/nm.397

Palaeococcus helgesonii ^{VP} Amend et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 15127. N4Lid 10.1601/nm.9815

Genus *Pyrococcus* ^{VP} Fiala and Stetter 1986. N4Lid DOI: 10.1601/nm.398

***Pyrococcus furiosus* ^{VP}** Fiala and Stetter 1986. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43587. High-quality 16S rRNA sequence S000497783 (RDP), U20163 (Genbank). GOLD ID: Gc00078. GCAT ID: 000532_GCAT. Entrez genome id: 287. Sequenced strain: ATCC 43587 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.399

***Pyrococcus glycovorans* ^{VP}** Barbier et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: CNCM I-2120. High-quality 16S rRNA sequence Z70247 (RDP), Z70247 (Genbank). N4Lid DOI: 10.1601/nm.400

***Pyrococcus horikoshii* ^{VP}** González et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700860. High-quality 16S rRNA sequence D87344 (RDP), D87344 (Genbank). GOLD ID: Gc00014. GCAT ID: 000596_GCAT. Entrez genome id: 207. Sequenced strain: OT3 is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.401

***Pyrococcus woesei* ^{VP}** Zillig 1988. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49860. N4Lid DOI: 10.1601/nm.402

Class *Archaeoglobi* ^{VP} Garrity and Holt 2002. N4Lid DOI: 10.1601/nm.403

Order *Archaeoglobales* ^{VP} Huber and Stetter 2002. N4Lid DOI: 10.1601/nm.404

Family *Archaeoglobaceae* ^{VP} Huber and Stetter 2002. N4Lid DOI: 10.1601/nm.405

Genus *Archaeoglobus* ^{VP} Stetter 1988. N4Lid DOI: 10.1601/nm.406

***Archaeoglobus fulgidus* ^{VP}** Stetter 1988. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49558. High-quality 16S rRNA sequence Y00275 (RDP), Y00275 (Genbank). GOLD ID: Gc00011. GCAT ID: 000599_GCAT. Entrez genome id: 104. Sequenced strain: ATCC 49558 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.407

***Archaeoglobus profundus* ^{VP}** Burggraf et al. 1990. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700456. High-quality 16S rRNA sequence AF322392 (RDP), AF322392 (Genbank). N4Lid DOI: 10.1601/nm.408

***Archaeoglobus veneficus* ^{VP}** Huber et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 11195. High-quality 16S rRNA sequence Y10011 (RDP), Y10011 (Genbank). N4Lid DOI: 10.1601/nm.409

Genus *Ferroglobus* ^{VP} Hafenbradl et al. 1997. N4Lid DOI: 10.1601/nm.410

***Ferroglobus placidus* ^{VP}** Hafenbradl et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 10642. High-quality 16S rRNA sequence X99565 (RDP), X99565 (Genbank). GOLD ID: Gi01752. GCAT ID: 001799_GCAT. Genome sequence is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD). N4Lid DOI: 10.1601/nm.411

Genus *Geoglobus* ^{VP} Kashefi et al. 2002. N4Lid DOI: 10.1601/nm.412

***Geoglobus ahangari* ^{VP}** Kashefi et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-425. High-quality 16S rRNA sequence AF220165 (RDP), AF220165 (Genbank). N4Lid DOI: 10.1601/nm.413

Class *Methanopyri* ^{VP} Garrity and Holt 2002. N4Lid DOI: 10.1601/nm.414

Order *Methanopyrales* ^{VP} Huber and Stetter 2002. N4Lid DOI: 10.1601/nm.415

Family *Methanopyraceae* ^{VP} Huber and Stetter 2002. N4Lid DOI: 10.1601/nm.416

Genus *Methanopyrus* ^{VP} Kurr et al. 1992. N4Lid DOI: 10.1601/nm.417

***Methanopyrus kandleri* ^{VP}** Kurr et al. 1992. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1075. High-quality 16S rRNA sequence M59932 (RDP), M59932 (Genbank). GOLD ID: Gc00080. GCAT ID: 000530_GCAT. Entrez genome id: 294. Sequenced strain: DSM 6324 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 2 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.418